1947-10

Advanced training of enlisted personnel in the navy.

Gould, Richard Kaynor

Palo Alto, California; Stanford University

ADVANCED TRAINING OF ENLISTED PERSONNEL IN THE NAVY

RICHARD K. GOULD
LIEUTENANT COMMANDER, U.S. NAVY
OCTOBER 1947

ADVANCED TRAINING OF ENLISTED PERSONNEL IN THE NAVY

A THESIS

SUBMITTED TO THE

SCHOOL OF EDUCATION

AND

THE COMMITTEE ON GRADUATE STUDY

OF

LELAND STANFORD JUNIOR UNIVERSITY

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS

FOR THE DEGREE

OF

MASTER OF ARTS

By

Richard K. Gould

Lieutenant Commander
U. S. Navy

October 1947

ACKNOWLEDGMENTS

In the preparation of this thesis, a number of people gave liberally of their assistance and advice. Foremost among these was Dr. John A. Bartky, Dean of the School of Education. The thesis subject was proposed by Dean Bartky, and some of the material from his lectures was used in the presentation. I am deeply grateful for the Dean's guidance and advice. His keen interest in and knowledge of the problems of personnel administration and training in the U. S. Navy served as an incentive to valuable research for all the officers of the Naval Service who were privileged to study under his direction.

I am indebted to the members of the faculty at Stanford under whom I studied. Among those who were of most help were E. R. Hilgard, D. W. Taylor, Reginald Bell, H. B. McDaniel, and J. D. Blacow.

To my faculty adviser, Paul A. Jones, Dean of Men at Santa Barbara College, go my sincere thanks. He devoted his time and effort liberally in assisting me in every way possible.

I appreciate the suggestions and technical assistance given by the six naval officers who were my classmates in the Naval Personnel Administration and Training Course. I wish

to thank two of them especially, namely: Captain Joe B. Paschal, U. S. Navy, and Lieutenant Commander Gardiner T. Pollich, (S. C.), U. S. Navy, for encouragement, advice, and assistance, and for reviewing and criticizing the original draft.

Of considerable assistance on my field trip to the Navy Department, Washington, D. C., was Dr. E. D. Carstater, Head, Training Research Division, Research Activity, Bureau of Naval Personnel, who was most helpful in the process of gathering research material.

TABLE OF CONTENTS

PREFACE

It is generally known that during World War II the Navy made tremendous advances in improvements, inventions, and developments in the equipment and techniques of naval warfare. At all times the paramount objective of the Navy is the improvement of its fighting efficiency. During a period of war the availability of practically unlimited resources in money, materials, and manpower, combined with the pressure of conducting a war, result in greatly accelerated gains towards this objective.

The impetus of World War II resulted in considerable improvement of one of the primary functions of the Navy--the training of its enlisted personnel. Much has been written on the various phases of enlisted training, but a considerable amount is obsolete or obsolescent and most of the material is widely scattered.

The first purpose of this thesis is to present a single, comprehensive, and up-to-date source of information on the subject of advanced school and in-service training of naval enlisted personnel, which may be useful to prospective commissioned officers and commissioned officers of the Navy, all of whom are vitally concerned with the important and continuous function of training.

The second purpose is to present conclusions and recommendations for possible improvements of the various aspects of the naval training program, based on knowledge gained from the writer's graduate study at Stanford University, his personal experience in eight years service as a naval officer, and his research for this thesis. It is hoped that these recommendations will be of interest and possibly of assistance to naval and civilian personnel who are working on the naval training program. However, it is appreciated that the time available for research, study, and the preparation of this paper did not permit the extensive effort that would result in a thorough, complete, and authoritative dissertation on such a large subject.

CHAPTER I

THE ENLISTED TRAINING PROGRAM

Introduction

The relative importance of training as a function of the Navy can be illustrated by statements of the Secretary of the Navy. The policy of the United States Navy is:

> . . . . to maintain the Navy as a thoroughly integrated entity in sufficient strength on the sea and in the air to uphold, in conjunction with our other Armed Forces, our national policies and interests, to support our commerce and our international obligations, and to guard the United States including its overseas possessions and dependencies.[1]

Supporting policies include:

> . . . . to develop the Navy to a maximum in fighting strength and ability to control the sea in defense of the Nation and its interests.
> . . . . to make effectiveness in war the objective of all development and training.
> . . . . to maintain and train the officer and enlisted personnel requisite for the regular naval establishment.
> . . . . to provide for the procurement, training, and mobilization of the personnel required for the expanded war organization.[2]

The fleet operating policies include:

---

[1]Office of the Management Engineer, Navy Department. The United States Navy, a Description of Its Functional Organization, Appendix B. NAVEOX P-435, Revised March, 1947.

[2]Ibid.

> . . . . to keep in commission, effectively manned and in active training, the number of ships, of all types, including their air components, necessary to provide a fleet of required strength.
>
> . . . . to assign suitable vessels and facilities for training the reserve personnel of the Naval Establishment.[3]

The personnel policies include:

> . . . . to maintain the personnel at a high standard of efficiency and sufficient numbers to meet the requirements of the naval service.
>
> . . . . to build up, train, and maintain naval and Marine Corps reserves and to provide for rapid mobilization.
>
> . . . . to develop and coordinate systematic courses of instruction and training for officer and enlisted personnel to advance their technical knowledge including logistics and fit them for assignments of greater responsibility.
>
> . . . . to provide for the transfer of personnel to insure a high degree of training, knowledge, and professional experience, and service efficiency, and at the same time provide adequate rotation of duty afloat and ashore.[4]

In reading the above excerpts from the most recent basic guide to all effort in the Navy, the emphasis that is placed upon training in general should be noted.

The people of the United States support a peace time navy as part of the Armed Forces in order to have the protection that a highly efficient and effective fighting machine can offer in time of war and also as a form of insurance against the involvment in war. In order to fulfill this trust, the major efforts of the Navy in periods of peace

---

[3] Ibid.

[4] Ibid.

must be directed toward the development and maintenance of instruments of war and, equally as important, the training of men to operate these instruments. All of the activities of the Navy must be planned to facilitate the attainment of these objectives, and no program can be tolerated that in any way inhibits their realization.

The responsible naval officer readily recognizes that the maintenance and improvement of instruments of war constitute one of his major duties. Failure to perform these duties becomes obvious through comparison with other navies or by inspection of the neglected gear. On the other hand, training, where results are less apparent and neglect not so conspicious, is often de-emphasized or forgotten. Yet, the most modern gear, maintained at top efficiency is certain to become ineffective without the presence of well-trained operators.

As a leader every naval officer has a responsibility towards: first, selecting the right man for a billet; second, training the man to perform well in this billet; and third, motivating him to carry on efficiently. The training obligation is at least as important as the other two. If a man cannot perform in a billet because of lack of training, then selecting him properly and motivating him successfully are lost efforts. Also to be remembered is that naval officers under the pressure of other routine duties must exercise caution to insure that the responsibility for training is not

turned over to inexperienced junior officers or petty officers and neglected or forgotten.

As naval warfare becomes more complex, and as fighting gear draws more and more from modern science, training develops into an extremely critical problem. In these days of highly specialized knowledge, the time in training necessary to produce qualified technicians is measured in years instead of weeks or months. It is, therefore, more important than ever, in the interest of efficient use of time and manpower, to utilize the best available methods and techniques of teaching. The use of inadequate and obsolete training procedures sabotage the efficiency of the Navy in many ways. Aside from the obvious results of poor training, such as the lessening of the efficiency and readiness of the Navy, is the important effect it has on morale. Unqualified instructors, obsolete curricula, unfavorable environment, improper use of training aids, and many other remediable training conditions not only have a undesirable effect on the morale of the students and instructors but encourages the existence of a feeling throughout the officer personnel of the Navy that assignments to duty in billets that are specifically training is to be avoided if possible. This stigma that is attached to duty in training will be discussed in detail in Chapter IV.

The study of naval training is highly involved and complex. It involves a thorough knowledge of the Navy plus considerable familiarity with many aspects of psychology and

professional education. While it is not practical to expect that all naval officers become experts in the field of training, concentrated and continuous efforts should be made by the administrators of the naval training program to educate all naval officers, especially student officers and newly commissioned officers, in the general objectives and organization of the naval training program, in the relationships of training to success in performance of other duties, and in the approved methods and techniques of good teaching.

Unless good training techniques are fully developed, taught, and generally used, and unless a basic and flexible organization for the naval training program is maintained during peacetime periods, the ability of the Navy to expand quickly and to effectively meet an emergency will be greatly handicapped.

Magnitude and Scope

Unless one has served in the Navy or had experience with naval personnel, he can have little conception of the amount of knowledge and skill necessary to operate a unit of the Navy. Using a capital ship with an enlisted complement of 2,000 men as an example, the following are standards that must be met:[5]

1. All are required to have eight to fourteen weeks of basic training.

---

[5]Figures from a Bureau of Naval Personnel pamphlet, Use of Training Aids, p. 2.

2. Five hundred are required to have an additional sixteen weeks of naval technical training beyond the level of basic training.
3. Another 500 must have this training and an additional advanced training course of thirty-two weeks or more.
4. Another 500 must have had sea experience, and at least one term in a Fleet School, or another of the advanced schools.
5. About eighty percent of the men must complete the equivalent of trade school courses during their naval experience.
6. All must continue to study and undergo training as long as they are in actual service.

For the complement of 2,000 enlisted men, there are 2,000 assigned jobs, each one specialized. This complement represents at least 1,500 man-years of training and 2,500 man-years of experience.

To illustrate the magnitude of the training job during war time, the following picture of the overall growth of the Navy in personnel, ships, and planes is quoted from a Navy publication:

> On July 1, 1940, the Congress authorized the creation of the "Two-Ocean" Navy. Five years later, July 1, 1945, the 4,500 vessels became 91,209. Combat ships completed in this time numbered 1,265. This number included 10 battleships, 27 aircraft carriers, and 110 escort carriers. To man these ships, naval personnel expanded from 160,997 officers and men to 3,389,000. Including the Marine

Corps and the Coast Guard would bring the total to 4,036,901 on July 1, 1945.

In the five year period the Naval Air Force grew from 1,741 service planes to more than 40,000. The Navy accepted 62,391 combat, 2,002 utility, 1,063 transport, and 13,632 training planes. This personnel, including Marines, grew to over 750,000.

To boost the Navy's personnel to the 3,288,556 officers and men in the service on June 30, 1945, it was necessary to procure 3,700,000 to maintain strength and expand despite attrition--an average of 14,200 a week for five years. The high point in procurement was reached during the fiscal year 1943-44 when the rate of 25,000 a week was reached. This was adequate to man a 1940 Navy every seven weeks.[6]

In his second official report to the Secretary of the Navy for the twelve months ending March, 1945, Admiral King stated that at that time the Navy was operating 947 schools with an average daily attendance of 303,000, and summarized the progress of training as follows:

> One of the most important aspects of our training program is the urgent need for turning over to the fleet men who are familiar not only with the fundamental skills, but with the very latest practices required in the jobs they are to fill. This means that there must be accurate and up-to-date information on the duties and responsibilities of men in fleet assignments. Job analysis specialists are serving aboard combatant vessels to observe and tabulate the operations performed in various billets, the skills required, and the equipment used. This information is used in writing the qualifications for the various rates; in establishing curricula for schools training for particular rates; and in preparing self-study training courses.
>
> As the war has progressed, many new ratings and subdivisions have been added. There are now more than 450 petty officer ratings and enlisted specialties. To overcome the lack of opportunity for training while at sea

---

[6] Bureau of Naval Personnel Information Bulletin, All Hands, October, 1945, pp. 31-32.

> and to utilize to best advantage time spent ashore while ships undergo repairs, a program of refresher training has recently been organized at special training centers. These courses serve to bring personnel up to date with the latest advances in tactics and equipment, and thereby promote the efficiency of operating units.[7]

It may seem to the reader, although impressed with the tremendous training job handled by the Navy during the war, that training is no longer such a significant problem now that demobilization has been completed and the Navy has shrunk to a fraction of its wartime size. However, even though a new rating structure has consolidated many of the ratings, the number of various kinds of tasks performed by the enlisted men of the "streamlined" peacetime Navy is steadily increasing. Training in new skills and knowledge must keep pace with new inventions and improvements in fighting equipment and tactics that are developed in peacetime as well as wartime. Whenever a piece of equipment becomes obsolete, a considerable amount of training becomes obsolete; whenever a new piece of equipment is placed in use or new tactics are approved, new training must be instituted.

The naval training program is undergoing continuous revisions affected by other factors as well. An extremely important factor at present, during the eight to ten year period of transition from a wartime Navy to a stabilized peacetime Navy, is the relative quality and ability of the

---

[7]Fleet Admiral Ernest J. King, Second Official Report to the Secretary of the Navy, 12 March, 1945.

enlisted men that man the Navy's ships and stations. Prior to the war a high percentage of the enlisted men were in the Navy for a career. Enough men were re-enlisting repeatedly in order to gain the benefits of retirement. During the war, principally as a result of the draft, the Navy had its quota of men with high intelligence, well rounded experience, and above average abilities. In both cases, the Navy had a substantial backbone of capable petty officers as leaders.

The present transitional period finds the Navy manned with an undesirably high percentage of recruits below the national average in intelligence.[8] The data given in the footnote below gives an exaggerated picture of the trend because during the summer months of this year, as every year, the mean intelligence of incoming recruits has risen appreciably due to the receipt of large numbers of men who have just completed school years in high schools. However, it is true that the Navy is receiving a significantly larger percentage of men who have below average limitations of ability and to whom technical training for tasks beyond these limita-

---

[8]The mean GCT score for all recruits, totaling 12,468, entering training centers during the six months period ending May 31, 1947 was 46.8. Overall mean GCT score for recruits for years 1944, 1945, and 1946 was 51.1. (The GCT is the Navy's General Classification Test, essentially a measure of intelligence. A score of 50 corresponds to the national average of intelligence.) These figures were computed from data obtained from the Research Activity (Pers 51) of the Classification and Field Division of the Bureau of Naval Personnel.

tions cannot be profitably given.

Another factor that affects the naval training program is the fact that an abnormally high percentage of trained petty officers are not re-enlisting at the end of their tours of duty. The reasons for this condition include: attractive opportunities provided for ex-service men by the "G. I. Bill of Rights", discouragement at the prospect of slow promotions during the post-war transitional period, relatively favorable economic conditions in civilian life as regards employment and wages, an apparent atmosphere of let-down and disinterest following the high level of patriotism, activity, and industry during the period of the war, and uncertainty as to security of position in the future in an organization subject to probable reductions in size.

It can be seen that many conditions exist that tend to weaken the enlisted personnel strength and hence the fighting strength of the Navy. Improvements in recruiting, provisions for more and better inducements to remain in the service, increased congressional appropriations, and other factors should be considered, but the Navy can go a long way toward meeting these conditions by intensive and continuous efforts to maintain the most efficient and effective training program possible.

General Objectives for Navy Training

The importance, magnitude, scope, and some of the

problems of enlisted training have been considered. In order to complete the general picture, discussions follow on the objectives of the naval training program, and the administrative organization that accomplishes these objectives.

There are three needs that must be filled by training:

1. Men must be indoctrinated into the navy way of life.
2. Men must be given vocational knowledges and skills.
3. Men must learn to function as members of teams.

Navy life is radically different from civilian life. The new Navy man must learn to feel at home in the Navy. He must be taught navy customs and courtesies, made amenable to navy discipline, and led to appreciate his place in the naval structure. This indoctrination is the primary function of recruit training which is covered separately in other chapters.

Practically every civilian occupation and many occupations that have no civilian parallel are represented in the list of navy billets. Hence the Navy has a problem of vocational training even more extensive than that confronting civilian educational institutions. Vocational training in the Navy must be rapid and effective. Just how this is done will be discussed later.

Good teamwork is an essential to success in modern warfare. All navy men must be trained to operate as members of small or large unit teams which make up the Navy, which

in turn is a member of the team called the Armed Forces of the United States. Team training is not easy to accomplish. It presents problems that have not been completely solved by civilian or military training activities, but the Armed Forces have made extensive progress in the development and improvement of methods and techniques, especially during the war. What they are and how they are used by the Navy in training ashore and afloat is discussed in other chapters.

Administrative Organization of Naval Training

For a clearer understanding of the entire naval training program it is advisable to briefly explain its administrative organization.

Bureau of Naval Personnel

Training is called an "activity" of the Bureau of Naval Personnel and is headed by an Assistant Chief of Naval Personnel for Training and Welfare. Under him is the Director of Training, his Assistant, and Assistant Directors for the five main Divisions of Training: Aviation, Women's Reserve, Standards and Curriculum, Field Administration, and Training Aids. The functions of the last three which are concerned with enlisted training in general will be listed.[9]

DIRECTOR, STANDARDS AND CURRICULUM DIVISION, Pers 41
- Distribution Unit, Pers 41e
- Curriculum and Instructor Training, Pers 411

---

[9]Organization obtained from unpublished Bureau of Naval Personnel Organization Chart dated January 1, 1947.

Afloat Training
Electronics Training
Engineering Training
NROTC and NACP, (Naval Reserve Officer Training Corps and Naval Aviation College Program)
Ordnance Training
Recruit Training
Radiological Training

Training Publications, Pers 412
Navy Training Courses
Research and Writing
Editorial Control
Printing Production
Radiological Publications
Officer Correspondence Courses
Preparation and Administration
Naval Reserve Officer Training
Naval Correspondence Course Centers
Illustrators' Unit

Educational Services, Pers 413
Field Program
USAFI Unit, (United States Armed Forces Institute)
USAFI Testing
Accreditation Unit
Enlisted Records
Officer Records
Aviation Training Records

DIRECTOR, FIELD ADMINISTRATION DIVISION, Pers 42

Enlisted Training, Pers 421
Recruit Training
Class P and A Schools
Class B and C Schools
Foreign Training
Naval Academy Preparatory School
Electronics Material
Naval Reserve Training
Bureau of Medicine Enlisted Training

Officer Training, Pers 422

Functional Training, Pers 423
Submarine, Mine Warfare, Sonar Salvage Net, and Harbor Defense Schools
Construction Battalion and Amphibious Training Centers
Combat Information Center Group Training Centers
Fleet Training Centers, including Electronics and Firefighting Schools
Naval Reserve Training in Functional Training Schools

Naval Reserve Officer Training Corps and Naval Aviation College Training Program, (for Officer Candidates), Pers 424

Equipment and Facilities, (for all Training Activities under the cognizance of the Bureau of Naval Personnel), Pers 427

DIRECTOR, TRAINING AIDS DIVISION, Pers 43
- Utilization and Evaluation, Pers 431
  - Utilization
    - Instructors Guides
    - Utilization Manuals
    - Training Aids for Curricula
    - Coordination Field Activities
    - Assistance to Training Officers
  - Evaluation
    - Proposed Training Aids
    - New Training Aids
    - Training Aids practices in the Field
- Production and Distribution, Pers 432
  - Production of Training Aids
    - Initial request, Research, Manufacture, and Printing
  - Recognition Training Aids
  - Distribution and Field Service, Shore Activities and Ships, (charts, posters, mockups, devices, recognition models and projection equipment).
  - Cataloguing of Training Aids
  - Training Aids Library Facility
- Training Bulletin, Pers 433, (Publishes a 28 page monthly magazine devoted to keeping all training activities and other interested agencies informed of developments in the field of training).

Even though the Bureau of Naval Personnel is generally responsible for the training of enlisted men in the Navy, there are three other large divisions in the organization of the whole Navy that maintain large and independent training organizations. Headquarters, U. S. Marine Corps, which ranks as a Navy bureau, is charged with the training of all Marine officer and enlisted personnel. The Bureau of Medicine and Surgery is responsible for the training of personnel of the Medical Department. And the Office of the Deputy Chief of Naval Operations for Air, not the Bureau of Aero-

nautics, supervises the training of all aeronautical personnel.

Naval District Training Organization

The Commandant of each Naval District has an Assistand Chief of Staff for Personnel and under him a Director of Training who has the following duties:

1. To serve, under the Commandant, as the primary representative of the Bureau of Naval Personnel on all training matters within the District, both internal and logistic.
2. To coordinate and supervise generally the administration of all schools and training establishments within the District.
3. To implement, coordinate, and supervise the training of the Naval Reserve, except the Aviation Reserve.
4. To recommend to the Bureau of Naval Personnel on all training matters within the District.
5. To cooperate with the Fleet and the Fleet training commands, as requested, in making available training facilities and services to ships coming into the District.

The District Director of Training and his staff of assistants specifically perform the following functions:

1. Serve as the primary channel for the Bureau of Naval personnel on all matters of Training

Administration within the District, with the exception of Naval Air Training Command Activities.

2. Effect the policies and directives of the Bureau of Naval Personnel and the Commandant for all training activities within the District.
3. Disseminate appropriate promotional and utilization information for the improvement of training.
4. Provide assistance and supervision in the area of instructor training covering methods and techniques of instruction, and utilization of training aids.
5. Provide services of the training aids program to training activities in the District, and to the Fleet Training Activities and Forces Afloat upon request.
6. Coordinate and promote Educational Services program in the District including off-duty classes, self study courses, correspondence courses, and accreditation.
7. Assist training activities and Forces Afloat in the procurement, installation, and utilization of special devices.

Fleet training command and shipboard training organizations are covered in Chapter III.

Conclusions

It has been emphasized that naval officers, through-

out their careers in the service, are vitally concerned with the training of enlisted personnel. In almost every duty assignment the efficiency with which an officer progresses with his work depends upon the ability of the enlisted men under his command or supervision to do their work. This, in turn, depends upon many factors, the most important of which is how well the men have been trained. The officer should realize that perfection in a team, division, or crew is never reached. There is always room for improvement. There are always such problems as being under complement, being short-handed in different ratings, being subject to a continuous turnover in personnel, casualties, the receipt of new equipment, new techniques, new orders, and the discovery of weaknesses in established routine that must be met by further training. Enlisted men in the Navy spend considerably more time in pure training than most men in civil professions, trades, and crafts. One reason is that the ability of the personnel manning the Navy's ships and stations is such an essential factor in the readiness of the Navy to perform its missions. Another reason that such a large percentage of time is spent in training is that the majority of men entering the naval service are unskilled and untrained. Also, the majority of the men in the service and those entering the service remain only for a few years. And further, the policies of rotation of personnel between duty at sea and shore in the interest of morale and of assign-

ing personnel to varying types of duties to broaden their experience, interest, and effectiveness result in a constant personnel turnover within all units. And finally, training must keep up with the progress in instruments and methods of naval warfare. A man fully trained and qualified to operate a piece of equipment needs more training to operate the newer gear that replaces it.

In order to intelligently meet their responsibilities toward the training of enlisted men under their supervision, all officers should understand the many aspects of the naval training program. They should know what types of training are available, how this training is accomplished, the qualification requirements of candidates for the various schools and courses, the reasons for these requirements, and what can be expected from the graduates of training courses. To this end, Chapter II presents a general description of enlisted training ashore, and Chapter III deals with enlisted training afloat. Chapter IV discusses some of the problems that exist in naval training and also explains how many factors affecting the success of training can be improved by the intelligent cooperation of all officers in the Navy.

CHAPTER II

ENLISTED TRAINING ASHORE

Introduction

In earlier times training in the Navy was done largely through apprenticing trainees to work with experienced men until their jobs were learned and they were able to proceed on their own. A trained man worked with one or possibly two men as his assistants until they too were trained. As the Navy grew in size, this method gradually became inadequate, for the number of men to be trained could not be handled by the number of experienced men available. Especially during the two world wars, the rapid expansion of the Navy made impossible the meeting of training needs by the apprentice system. Also, the development of tools of naval warfare from the sailing ships and smooth bore, muzzle loading cannon of the Revolutionary War to the highly intricate and scientific instruments of today has greatly increased the amount and complexity of training needed by the average naval enlisted man. Also, the ratio of brain power to brawn power required of the enlisted strength of the Navy has changed considerably.

In the old Navy it was common to have a large percentage of a ship's crew who could not read or write. Today,

even though the educational level has dropped since the expiration of the draft, the average naval recruit has completed the ninth grade prior to entry into the service.[10]

The first chapter dealt with the enlisted training program in general. This chapter will describe the various types of formal enlisted training that is conducted ashore with the exception of recruit training which is discussed in other chapters.

Service Schools

Elementary

Two types of elementary service schools are maintained to provide training on a pre-rating level for quotas of qualified trainees drawn from the recruit training centers. These are called Class "P" and Class "A" schools.

Class "P" schools are preparatory schools. They are designed for men who have completed recruit training, and who have shown above average intelligence and ability, to prepare them to qualify as "strikers". (A striker is a non-rated man who is qualifying himself for a petty officer rate.) The

---

[10] For the 151,543 recruits entering Great Lakes Training Station from February 1945 to July 1946, 13.7 percent had attended college, 38.7 percent had completed high-school, and the average highest grade completed was 11.0. For the 4,048 recruits entering the same station from January 1 to June 8, 1947, the average highest grade completed was 9.4. From information obtained from the Classification and Field Research Division of the Research Activity (Pers 15) of the Bureau of Naval Personnel.

Class "P" school provides short-course training in elementary operating skills needed by personnel who are to be assigned certain basic types of duty. These elementary schools also provide training which prepares selected personnel for a somewhat more advanced type of technical training in Class "A" schools. The period of instruction in Class "P" schools varies from three to eight weeks. Graduates of these schools are either assigned to further training or to duty in the enlisted specialty for which they were trained.

Class "A" schools are maintained to provide the elementary technical training needed by third class petty officers in various specialties. The period of instruction in Class "A" schools varies from six to twenty weeks. In general, however, training in most Class "A" schools lasts sixteen weeks. In the earlier months of the war, a certain percentage of the best qualified graduates of Class "A" schools were advanced to third class petty officer ratings at the end of their training. That practice has been discontinued, and all are graduated as non-rated seamen or firemen, first or second class, and given designators to facilitate their assignment to the duty for which they are trained, but their advancement in rate is more likely to follow in duty billets as a result of the specialized training obtained.

Advanced Service Schools

Included in this classification are Class "B" and

Class "C" schools. While both of these types of schools draw trainees from the same sources, namely, elementary schools, shore centers, and the fleet, their curricula differ widely.

The curricula of Class "B" schools are designed to prepare trainees to meet the technical qualifications required for a general service rate of first class petty officer. Trainees assigned to these schools are second and third class petty officers and the period of training varies in different schools from eight to fifty-two weeks. Typical of the Class "B" schools are those in which training is provided for torpedomen, aviation metalsmiths, and fire controlmen.

Class "C" schools are designed by type as "C-1" schools, located in naval training centers, and "C-2" schools, operating in manufacturing plants and factories. Their curricula are designed to provide training in the development of special skills and knowledge required in specific types of duty, in general service ratings, or in maintaining and operating new equipment. For example, among the "C-1" schools maintained during the war were ones for training printers, typewriter repairmen, and motion picture operators. There were "C-2" schools for such training as that needed by teletype maintenancemen, diesel instructors, and aircraft instrument repairmen. With a few special exceptions, Class "C" schools are now being conducted at naval shore establishments.

Fleet Service Schools and Fleet Schools

Both of these types of schools are maintained to supply the fleet with personnel equipped with special abilities needed only in shipboard billets. Curricula are therefore shaped in nature and scope to meet specialized manpower needs of the fleet. For example, among the elementary and advanced types of training provided in these schools is that needed by landing craft operators, ammunition handlers, welders, communication technicians and aircraft maintenancemen. The main difference between these two types of schools is one of administrative control. While Fleet Service Schools are operated for the fleet by the Bureau of Naval Personnel, all Fleet Schools are under the cognizance of Fleet Training Commands.

Functional Training

This classification includes "operational" and "team" training. Personnel given this training often includes both officers, and enlisted men who are assigned from the fleet, from recruit training, and from Navy schools. These trainees are often organized for instructional purposes into tactical units similar to later organizations of units ashore or aboard ship. For example, this type of training is given to nucleus crews for new construction. Instructional emphasis is placed on the development and coordination of skills needed in operating such shipboard equipment as that used by groups in fire fighting, salvaging and repair, bomb disposal, anti-

submarine warfare, combat information center, and shipboard gunnery fire control. This type of training consists mainly of courses set up at various training centers and fleet schools to fill special needs as they arise.

Refresher Training

This includes short courses at established training activities and all larger naval shore establishments such as navy yards, air stations, and operating bases, which are available to the crews of ships, squadrons, and other units during their stay at such establishments. For example, during the period that a destroyer remains at the Naval Torpedo Station at Newport, Rhode Island, for repair or overhaul work on torpedo equipment, groups from the crew can be given two week refresher courses in torpedo fire control, exploders, torpedo maintenance, or depth charges. Most courses in this classification have flexible curricula so that they can be adapted to the length of time available for training. Refresher training is given to maintain or increase skills which might otherwise deteriorate during periods of inactivity of a ship's personnel.

General Education

Educational Services

While the training in navy procedure is going forward, the general education of the enlisted men is not neglected. This means that they are given opportunities to keep

abreast of world happenings, to pursue their individual interest and vocations, and if they so desire, to continue their education through correspondence courses and off-duty classes. These activities for self-improvement are invaluable in maintaining morale and discipline among the personnel of the Navy.

This part of the Navy's training program is called Educational Services. It is extensive in nature and varied in scope. The informational aspect of the program includes a study of the foundations of national power, the United Nations Organization, the role of the Navy in peace, and a citizen's duty in a democracy. Various means, depending upon the facilities and personnel at each naval activity, are used to realize these aspects of the Educational Services program. Slide lectures are presented, films are shown, lectures are given, phamphlets and other printed and mimiographed materials are distributed, and discussion groups are held.

The educational aspects of the program provide academic and vocational instruction, literacy training, educational and vocational counseling, and testing and accreditation service. To accomplish this function, the following types of training and instruction are included: classes are conducted in academic and vocational subjects; shop training is provided in Navy shops; on-the-job training is provided through apprentice training by qualified technicians; and

enrollment in correspondence and self-study courses is sponsored.

Occupational information is made available to all hands through conferences and by printed material to assist the men in making plans for the future. End-of-course examinations are administered in cases where men desire school credit for work taken through correspondence courses. Assistance is given to men who wish to apply to civilian schools and agencies for credit for their military training and experience.

Training officers and others concerned with the general education of men should consider the following general recommendations for conducting an Educational Services Program:

1. Conduct surveys to determine the needs and interests of personnel, the availability of gear and facilities suitable for use in operating a program to meet these needs and interests, and the availability of personnel qualified and eligible to assist in administration and instruction.
2. Assign to duty in the Educational Services Program whatever officer and enlisted personnel are required to meet the need for this program.
3. Make available for use in the program: facilities and equipment in shops, laboratories, and offices.
4. Allow personnel, whenever the work load permits,

to attend classes during working hours.

5. Require illiterates to attend classes in literacy training while releasing them from a part of their military duties.
6. Permit the use of any assistance and facilities available at civilian educational institutions.

United States Armed Forces Institute

All naval officers, especially those in training, should be familiar with the various types of educational opportunities in order to insure that the enlisted men with whom they work are acquainted with those that are available to them. One of the important services for which all personnel of the Navy on active duty who are not engaged in recruit training are eligible for is enrollment with the United States Armed Forces Institute, better known as USAFI. This is an official agency of the War and Navy Departments which provides educational courses and services for individual study. It provides a means by which a man may utilize his spare time to continue or begin a high school or college education. The finest educational facilities of the United States have been made available while he is in the service no matter where he is stationed, and at a cost that is very little, far less than it would be for a civilian.

USAFI offers two plans for individual study: correspondence and self-study courses. There are two kinds of correspondence courses: Institute Courses, offered directly

by USAFI itself; and University Extension Courses, offered by some eighty-five cooperating colleges and universities throughout the country. Enrollment for both types are made through USAFI; after enrollment in a University Extension Course, however, all further contacts are directly with the institution concerned. The courses of both types are thorough and consist of high school, technical school, and college or university offerings.

There will be a wide variety of interests and educational levels among enlisted men desiring academic training. Also, voluntary school classes conducted locally and correspondence courses may not meet the needs of all of these men. Some men prefer to study a subject entirely on their own, or they may be stationed at bases or aboard ship where they cannot be reached promptly and regularly by mail. A self-study plan through the use of USAFI Education Manuals is available for such cases. On isolated bases or on long cruises, with self-study textbooks, a man can study at any time it suits his convenience and duty schedule.

A streamlined peacetime USAFI program, with the number of course titles reduced considerably but with all essential services still available, is the result of recent action taken by the War-Navy Advisory Committee for the U. S. Armed Forces Institute.[11]

---

[11]The Committee is composed of two Army and two

The courses deleted are principally the more advanced vocational offerings and the college level subjects above the freshman year. This action followed statements from the military services indicating that present age and educational levels of personnel are such that concentration on high school and first year college courses is desirable. Most of the cancelled courses, however, can still be obtained from the colleges and universities which cooperate with USAFI. Courses beyond the first year college level which are of special value to military personnel are being retained.

Instructor Training

The belief that a man is qualified to be an instructor if he is acquainted with a given body of subject matter is no longer given credence. There have been too many examples to prove that there is not necessarily any correlation between these two factors. Many men who are thoroughly conversant both with theoretical and practical aspects of their jobs have been complete failures when they have attempted to teach their knowledge and skill to others. This has made it necessary to train men to do the specialized job of instructing. A special section in the Standards and Curriculum Division of Training in the Bureau of Naval Personnel, the

---

Navy officers and eleven prominent civilian educators, under chairmanship of Dr. A. J. Brumbaugh, vice president of the American Council of Education. Current active enrollment in the Institute exceeds 300,000, more than one enrollment for every six men and women in the Armed Forces. From an article in the Army and Navy Register, July 12, 1947.

Instructor Training Section, functions with the expressed purpose of qualifying men as instructors in the various navy schools.

The problem of training men to become instructors has many phases. The prospective instructor must be carefully selected. Among other attributes he must possess adequate knowledge of subject matter, he must have ability to work with others, a pleasant personality, good voice, ability to organize his work, and a sincere desire to teach. The selection of instructors is then an important aspect of the instructor trainer's job.

When he has been selected, on the basis of these and other important qualifications, he is ready to undergo several weeks of concentrated training in the art of instructing. This training, although elementary in nature, is nonetheless a prerequisite to success as an instructor. The prospective instructor learns to organize his material into daily lesson plans which act as a guide to him in teaching; he learns how to give clear, concise explanations and demonstrations; he becomes acquainted with some of the fundamental laws which govern learning; he learns how to use training aids, (charts, graphs, mock-ups, models, slides, training films, etc.), effectively; he learns how to construct and administer tests and how to direct laboratory exercises. In short, he learns the fundamental strategy of teaching, the getting across of the essential knowledge to trainees in the most effective

manner.

Traditional methods of education require a number of years to train a teacher. During the war it was impossible to train the required number of technical instructors by this slow process. Speed was essential and the teacher training period had to be measured in weeks instead of years. In peacetime, as important as instructor training is to the success of the naval training program, it is also impractical to spend excessive time to instructor training. The majority of instructors in the Navy are necessarily naval personnel, and normally are experienced officers and petty officers who are on a tour of shore duty of about two years. Also, although the present policy to utilize qualified instructors in training assignments on each tour of shore duty, many factors such as pressing needs for experienced men in other types of duty and the present low percentage of re-enlistments necessitate the use of large numbers of instructors who are inexperienced in teaching. Therefore, it is necessary to provide streamlined instructor training courses that will enable the graduates to perform the important function of effectively teaching their specialties.

Most large naval schools and training centers conduct such courses of only a few weeks in length for men who have been selected and ordered to duty as instructors. Although these new instructors do not receive much of the historical background of education or the why of various

teaching methods, the improvement in the results of their work over the more or less haphazard methods used in the earlier Navy is gratifying. It can be said that the administrators of naval training learned a valuable lesson from the Navy's experiences during World War II. Although the training in the Navy during peacetime is less in quantity, since far fewer men are trained, it should not be poor in quality. A fundamental way to insure that the training remains at a high level is to continue to stress the importance of instructor training.

The Bureau of Naval Personnel does consider the selection and training of instructor personnel of utmost importance. The latest policy on qualifications, selection, and training of instructors is given in Chapter IV.

Conclusions

A considerable amount of naval training must be conducted ashore on a permanent basis for several reasons. One, and probably the most obvious, is that an up-to-date naval training program must be extensive and intensive to fulfill the need of manning a modern and highly complex Navy with personnel qualified to keep it at a peak of efficiency and readiness. Even with a reduced number of personnel, such factors as the highly specialized skills required of naval personnel today and the constant turn-over of personnel manning the Navy, make it impossible to meet training require-

ments solely by the systems of apprenticeship and in-service training. Even though operating units afloat have more time during periods of peace to devote to training, they cannot handle the load. Large parts of the training for most specialties can be conducted ashore more efficiently with regards to time, expense, and the use of manpower.

Flexibility in maximum training load is another advantage in maintaining a shore organization equipped to handle basic and advanced training for all ratings and specialties. During the early part of World War II, ships in commission had their hands more than full with war operations and the training of their own crews. There was not enough time or room for the training of the hundreds of thousands of men needed to man the thousands of new ships. Prior to the war the Navy had conducted aboard ship a large part of the entire training program for enlisted men. This was due mainly to a program of economy and the fact that there was plenty of time. Unfortunately, when mobilization came, the procurement of men far outstripped the capacity of advanced naval training. This caused serious delays and the manning of ships with inadequately trained personnel. The repetition of such a situation can be avoided in the future by maintaining a skeleton training organization ashore with at least one school or course of each type in continuous operation. Then, in an emergency, the capacity of the naval training program could be quickly expanded by merely dupli-

cating schools and courses as necessary, utilizing those in operation as pilot models for organization, equipment, personnel, curriculum, methods and techniques.

CHAPTER III

ENLISTED TRAINING AFLOAT

Introduction

In Chapter II it was pointed out that there is a definite trend in the Navy towards more training ashore, and that this is most desirable and should be encouraged. However, that does not mean that the amount of training being conducted aboard ship is decreasing or that it should be decreased. Actually, an in-service training program is underway that far surpasses in scope, organization, and procedures anything known prior to the war. It is true that the continuous training of ship's crews for battle has always been recognized in the United States Navy as one of the major reasons for its history of successful warfare, but the modern organized shipboard training program utilizes training methods that are a tremendous improvement over the old systems of teaching by having knowledge and skills "pounded in" by impatient officers and petty officers, and of learning the hard way, by making mistakes.

The fact that every Navy man is himself learning or engaged in the training of others continually when carrying on his daily routine of work is not to be overlooked, but

by training, as referred to in this chapter, is meant organized, planned instruction and drills to meet specific objectives.

The need for shipboard training in the Navy is greater at the present time than ever before. This need will continue to exist as long as raw recruits replace more highly trained men who have been demobilized. The meager supply of service school graduates and the continuing technological advances in material serve to focus the need for training on board ships of the fleet. Because of curtailment of personnel ashore to meet the dual problem of demobilization and keeping the fleet in operation, shore-based schools cannot furnish enough men trained in the bases of their rates, nor can they recall adequate numbers of men from the fleet to give them further training in the use of new weapons and gear.

No matter how critical the situation or how much it may improve there is only one feasible answer to this problem. The individual ship must take the material at hand and forge it into an efficient crew.

Several advantages accrue to the ship having a well-organized and enthusiastically executed training program. No one can deny that a smart crew is made up of well-trained individuals, nor that such a crew makes the work of its officers noticeably easier and more effective. The crew's appreciation of the interest shown in them will be reflected

in the form of better discipline and morale. A further advantage in having a good training program is found in the fact that a job with which one is unfamiliar is difficult, hence usually distasteful; it follows that the officer or man who is familiar with and well trained in his job will do that job more thoroughly, more efficiently, and more willingly.

Training Objectives

Training ashore and training aboard ship are related aspects of one continuous training job. The two parts must be made to dovetail. One must build upon the other, and to achieve this aim, the objectives, characteristics, and problems of the over-all training program and the two main divisions must be understood by all naval officers, since most duty assignments involve responsibilities toward some phase of training.

> Organized shipboard training has one major goal--to provide final preparation of fighting men for fighting jobs. Its method is to maintain, build upon, and apply the training received ashore. Through shipboard instruction officers and crew acquire knowledge, ability, and experience with which to improve their performance at their stations. The result is to increase the service of every man to his ship and to the Navy.[12]

To reach this objective, shipboard training in the peacetime Navy may be divided into three phases. First, the new man coming aboard must be brought up to standard effi-

---

[12] Bureau of Naval Personnel, Training Bulletin, April 15, 1945, p. 1.

ciency. Second, those men who are now in the ranks must be trained to accomplish all the duties of their rates, as opposed to partial fulfillment which was common under wartime conditions. Third, each man must be trained in the duties and responsibilities of those rates senior to him so that, in the event of an emergency, he will be able to assume further responsibilities. In addition to the technical knowledge of the higher rates, he must be able to handle with facility the methods and techniques applicable to high speed training.

The ultimate goal of all training during peace time should be to impart to every man who is capable all of the technical, professional, and leadership knowledge, including that of how to train subordinates, of the chief petty officer in his specialty. If then it becomes necessary to expand the Navy to war time proportions, present personnel can readily form the nuclei of new crews. On each new ship this nucleus will be able to direct adequately the activities of recruits and reservists brought aboard to form the balance of the crew and will be prepared to carry on an effective emergency training program. The result of these two actions, adequate leadership and effective training, will be to train the entire ship's company quickly and to imbue it with a unified and excellent ship's spirit.

Fleet Training

Organizations for the administration and supervision

of training within the Navy's fleets are known by such names as Commander Training Command, Pacific, and Commander Training Command, Atlantic. These organizations also control the activities of the various Fleet Service Schools. The Fleet Training Commands perform training functions for their fleets similarly as Naval District Training Directors do within Naval Districts.

Types of Training

For enlisted personnel, the organized shipboard training program includes a number of aspects, each important in itself. These can be called: team training, refresher training, technical training, training for advancement in rating, and instructor training.

Team training for all personnel, by departments and divisions, includes many general drills such as General Quarters, Fire Drills, and special drills for Combat Information Center, gunnery, damage control, and other groups.

Refresher training or review and strengthening of fundamentals learned ashore is necessary to insure prompt, efficient performance of lookouts, telephone talkers, seamen, engineers, gunners, and other enlisted personnel. Knowledge is not enough, it must be applied to a reality in order for a trainee to achieve and maintain a high level of performance aboard a specific ship. The combination of team training and refresher training assures this high standard of performance.

Technical training enables trainees to perform their duties with more understanding, and in some cases to begin to learn the duties of a rate or of the next higher rate to his own. Sometimes the experience of the group will determine whether a particular series of training periods is "refresher" or "technical" training.

Training for advancement in rating is important for its effect on the performance and morale of the crew. Depending upon the trainee, the technical training just described may aid an individual in his work on the training course dealing with the rate he is seeking.

Instructor training afloat may be considered an emergency function. During the present transitional period between a war time Navy and a stabilized peace time Navy, a critical shortage exists in experienced officers and petty officers who have had instruction or experience in the methods and techniques of good teaching. There are now available to all training officers several good Navy publications such as the Manual for Navy Instructors, (NavPers 16103), Curriculum Handbook, written by the Instructor Training School at the U. S. Naval Training Center, Farragut Idaho, when that school was in operation during the war, and the Shipboard Training Manual, not yet published, but being printed by chapters in the monthly Bureau of Naval Personnel bulletin Training, starting with the December, 1946 issue. The ship's training officer should realize

that the abilities of his instructors to teach is equally as important as the knowledge of the subjects when working for a successful training program. He cannot wait until the Navy reaches its goal of giving most if not all first class and chief petty officers formal instructor training in schools ashore. He must utilize the qualified personnel he has to train others in how to instruct.

Shipboard Training Administration

The administration of a shipboard training program deals with the five major functions of administration. The proper application of these principles of management is essential to the establishment and execution of any organized effort. They are, briefly:

1. Planning--establishing the objectives, and determining the means by which they will be accomplished.
2. Organizing--arranging various factors and facilities in such a manner that the objectives will be accomplished in the most efficient manner.
3. Commanding (executing)--setting the program in motion, furnishing the facilities with which the work is to be done, motivating the operating forces to a continuing effort.
4. Controlling--checking periodically on the results

achieved, to ascertain that the effort put forth is accomplishing the major and minor objectives.

5. Coordinating--making it possible for the various parts of the program to function simultaneously with the least possible friction, and with the greatest possible effort directed toward the achievement of the objectives.

Planning

The Commanding Officer, recognizing the need for training, should take the first step in directing the organization of a training program by establishing a planning board for training made up of the heads of the ship's departments with the Executive Officer as the chairman. The membership of the Board, its purposes, responsibilities, and authority, should be specifically set forth in a directive from the Captain, together with a statement of the general training objective.

The general objective is to develop a well-organized crew that is capable of maintaining and operating the ship at its maximum effectiveness under all conditions. Basing its action on this type objective, the Board must plan for integrating into the training program the trainees, training, trainers, methods of instruction, time available, facilities (gear, space, references, training aids), and the adminis-

trative personnel. In doing so, the Board should make provisions for the following general qualities that a good training program must have:

1. The program must be flexible. It must be arranged so that it will meet immediate needs and will change as the needs change. It must function effectively and take advantage of unforseen opportunities, such as engine breakdown, bad weather, proceeding independently, and so on, that afford a chance to do varieties of training which depend upon those circumstances for holding them. The program should also take full advantage of each all-hands evolution, such as General Quarters, entering and leaving port, and fueling ship. In other words, the situation must be such that training opportunities can be seized upon when they occur.
2. The program should encourage initiative by recognizing outstanding performance as trainers or students on the part of individuals, teams, divisions, or departments; by giving instructors sufficient time to prepare their plans and new material for presentation and by motivating the crew to enthusiastic acceptance of the training program.
3. The program must be a model of simplicity.

Provision must be made to keep records and reports at a minimum, make materials accessible, keep policy understandable, and to use the least complex scheduling system.

4. The program must provide for an exchange of ideas. Because no one has a patent on having good ideas, provision must be made to exchange information concerning techniques, procedures, and so forth, between ships, divisions, and other training units. A flexible program can be changed to accomodate ideas that are of value.

Organization

Since a new naval officer's first assignment is normally to duty aboard a ship, it is here that he first encounters his responsibilities toward training, and it will be of considerable assistance to him if he understands the generally recommended shipboard training organization and the part that he will be expected to perform.

The "chain of command" should follow the usual ship's organization, except that the heads of departments are organized into a Planning Board whose duties are to assist the Captain in the formulation of training policy and to carry out his decisions in matters pertaining to training.

The duties and responsibilities of each echelon of the training organization as recommended in the Shipboard Training Manual are as follows:

The Captain approves matters of policy, indicates ship's needs and decides priority for fulfilling them, motivates trainees and training administrators, evaluates training methods and their application by examining results obtained, and passes upon recommendations of the planning board.

The Executive Officer functions as chairman of the planning board for training, maintains close liaison with the board and the commanding officer, and schedules training activities in the plan of the day.

The planning board for training establishes training objectives and defines the scope of the program, proposes policies for executing the program, makes continuous evaluation of training in light of changing needs, recommends changes in objectives, policy, and methods of execution; and coordinates activities of various departments when involved in training.

The head of a department is responsible for all officer and enlisted training in his department, implements approved policies and plans to meet objectives established for his department, approves curricula, courses, and lesson plans for his department; supervises training in his department by inspecting instruction groups, for watch standers, and at drills; coordinates the use of facilities in his department, and keeps himself continuously posted on the progress of training.

The training officer, any officer particularly well qualified, should be assigned to function in an advisory and service capacity to assist department heads in the execution of their training functions, to supervise those activities peculiar to training, and to administer the training office. He assists in the coordination of department programs, assists various departments in selecting and training instructors, observes and evaluates instruction given, supervises the preparation of training plans and schedules for the approval of the department head and the planning board, keeps suitable training records and prepares adequate reports; assembles, catalogues, and keeps available all training information, aids, courses, pamphlets, and similar material; receives direction from and renders reports to the planning board via the executive officer, maintains close contact with shore establishments and advises the planning board on the utilization of adjacent shore facilities for training ship's personnel, directs the Educational Services Program, and organizes and directs physical fitness program.

The division officer selects instructors, selects and organizes trainees, prepares and supervises preparation of lesson plans, prepares and submits division training schedules, coordinates the use of space and gear for training; observes, evaluates, and strives to

improve instruction, and maintains and submits reports and records.

Junior division officers assist division officers in the dispatch of their training duties and assist in the instruction of petty officers.

Petty officers of the divisions and of various teams assist in lesson planning, observe immediate aspects of the program and offer suggestions for improvement, instruct individuals and groups as required, and keep records of instruction completed as required.[13]

Execution

The first step in the execution of the shipboard training program is to prepare a "training bill" which reflects the training needs of the ship and gives general directions for resolving the problems encountered. It should contain statements of the need for training and of the objectives of the program; a general description of the duties, responsibilities, and authorities of personnel in the training organization; and a statement of policy or when, where, and how the program is to be accomplished.

Then the planning board should gather specific information on what training is needed, who is to be trained, in what order the training is to be given, how much each man knows to begin with, of what, specifically, does each job on the ship consist (billet analysis), and what is the best time, place, and method for each type of instruction.

After this, the instructors must be chosen and given instructions, classes must be organized and schedules made

---

[13]Bureau of Naval Personnel, U. S. Naval Training Bulletin, January, 1947.

out, and the entire crew educated on the operation of the training program.

Controlling

Controlling, or evaluating progress and results, is essential to the success of a training program. Provisions must be made for the determination of facts relative to the direction and amount of achievement in order that future corrective action may be taken. Control devices such as frequent and systematic inspections, training progress charts, individual records of training, and instruction evaluation check-off sheets are necessary for three reasons: first, to determine if the objectives of the program are being accomplished according to plan; second, to establish a basis for any action involving individuals such as promotion and further training; and third, to insure adequate and effective use of training materials such as training aids and publications.

Coordination

Coordination means assigning the proper proportions to things and actions and unifying all efforts into an integrated whole. It involves close attention to the entire training program to insure that harmony and balance are preserved in working toward one general objective which is necessary during all phases of planning, organizing, commanding, and control. Coordination is a systematic means of

passing the word down the chain of command as to specific duties required of individuals; receiving up through the chain of command suggestions, difficulties, and deviations from plans; and providing for cooperation between personnel in different departments.

There are several steps that can be taken to assist in achieving a well coordinated training program. Statements of duties, responsibilities, and authorities must be specific. If all hands know what is required of them they will be more apt to carry on in accordance with the basic plan. Good personnel management should be practiced to instill loyalty and enthusiasm. For example, if an instructor makes a suggestion for the improvement of the training program, his supervisor should pass it on up the line. Frequent conferences, usually weekly, should be held by division officers and by department heads to give oral, narrative reports on progress and developments, to explain difficulties and, where possible, to iron out obstacles.

Conclusions

Until the personnel of the Navy becomes stabilized, the immediate objective of the shipboard training program should be to develop men who can do particular tasks well enough to operate the ship. The present turnover is very rapid, and to repair the damage done to the crew by the expiration of short-term enlistments will be a big training

job. Because the Fleet must operate now, this is a job that must be done quickly. As personnel become more stabilized, the objective will change to a long-range plan to provide skilled men around whom to build crews in the event expansion is called for be another emergency.

The connotations in this are clear. Now the man must be trained to do his assigned task; the emphasis must be on skills acquired. Later, the man, having thoroughly mastered the duties of his present rate, will be trained for greater operational and instructional responsibilities.

The directives, instructions, and guides for an intensive and effective shipboard training program are available. Any ship in the Navy can plan, organize, and initiate such a program, but its success depends mainly upon two factors: familiarizing all personnel with its objectives and benefits; and motivating the administrative personnel sufficiently to overcome the many obstacles that will be met under present conditions of shortages of qualified personnel and of rapid turnover in enlisted personnel.

CHAPTER IV

NAVAL TRAINING PROBLEMS

Introduction

An authority on the problems of the naval training program has stated:

> Training and education of Naval Personnel during the immediate post-war years has been highly complicated by the demobilization of war-trained technical specialists, the abnormal number of recruits required to replace men with short-term enlistments. . . . . This situation will continue for a minimum of five years. These complex problems in training and education of personnel can only be solved by the continuous effort of those charged with these difficult duties.[14]

Modern naval training can be considered as a science, and training problems must be approached through the agency of scientific method if valid and reliable solutions are desired. The era of answering most training questions by debate and by employing as argument the whims and prejudices of some commanding officer is over. The modern method of solving training problems consists of using whatever is pertinent and available from the sciences of psychology and education, and no longer refers for solutions to the mythology built around the practices of Frederick the Great, John Paul

---

[14]Captain J. M. Will, U. S. Navy, Director of Training, Bureau of Naval Personnel, in an editorial in U. S. Naval Training Bulletin, October, 1946.

Jones, and other military heroes of history. The individual who wishes to employ scientific procedures will, however, meet some opposition. First, he will be confronted by the old-timer who may be a top-notch fighting officer, but who looks upon modern psychology and methods of education as the wild ravings of "long hairs", and he will have nothing to do with up-to-date ideas. Second, he will meet the younger and successful naval officer who, because of his success, feels that whatever training he received or supervised must have been the most practical, and he resists change. And third, he will meet the officer who knows nothing about modern, proven training methods and appears to be proud of the fact that he does not know. The latter type is usually found in a training billet when he has been assigned that kind of duty regardless of the fact that he had no special training or experience in education. Such an officer's qualifications are usually his own training to be a commissioned officer, eligibility for shore duty, his experience in various types of administrative work, and the fact that there is no one else available for the assignment who is better qualified. Whenever a person is detailed to perform work for which he is not qualified by training or experience, he is apt to place over-confidence in assistants who appear to know what they are doing, not to take a sincere interest in his duties, and not really do a good job. Even officers who conscientiously try to overcome the handicap of not being qualified

tend to become discouraged, to look forward to the end of that particular tour of duty, and to avoid similar assignments in the future. Consequently, training billets, for example those in enlisted schools ashore, have become relatively unpopular among naval officers.

Training of Administrators and Supervisors

In conducting research for this thesis, an impressive amount of material on naval training in the way of directives, plans, organizations, instructions, guides, curricula, publications, training aids, and so on was found to be available for the use of those concerned. The volume and variety reflects the tremendous effort being expended on the various programs of naval training. However, although conscientious and otherwise capable officers are the rule in billets of training administration and supervision, the majority lack sufficient knowledge and understanding of the practical as well as the theoretical aspects of the principles of educational psychology. On the other hand, some of these officers have learned the essentials by their own effort and by association with the few well-trained officers and the few civilian experts employed by the Navy, and they are doing fine work in naval training. But unfortunately, just about the time that they become thoroughly capable, it is time for them to return to sea duty and to be replaced by other untrained and inexperienced officers. This situation

cannot help but handicap the efforts of top personnel in training. More than plans, directives, and key administrators are needed to keep naval training going efficiently. All officers in the program should be better qualified. This includes the training officers aboard ship, the entire staffs of officers at training activities ashore, and the officers throughout the whole training organization.

Improvement of this situation could be effected in the immediate future by setting up a relatively short course in the fundamentals of training, including such subjects as motivation, learning processes, individual differences, the nature of intelligence, educational measurements, interviewing and counseling, methods of teaching, and so on. If all officers ordered to duty in training were given such a condensed course, they would not become experts, but they could considerably improve the accomplishments of the activities under their supervision, and they would be comfortably familiar with some of the problems encountered.

A long range plan should include such a course for all prospective officers. It has been emphasized throughout this work that all officers have definite responsibilities toward training even when not specifically assigned to a training billet. Officers, as leaders, give orders to more junior officers and to enlisted men, and the responsibility for giving orders includes responsibilities for seeing that they are understood and carried out. Orders are often

instructions which involve an ability to teach just as much as a knowledge of the subject.

For either student officers or experienced commissioned officers, it would be impractical to even approach the amount of training given to civil school teachers or school administrators, but it is felt that special training for officers who administer and supervise the naval training program is equally as important as the training of the instructors.

Two steps have been recently taken to better this situation. One is the inclusion of a course in leadership in the curriculum of the U. S. Naval Academy. The other is the starting in 1946 of a Navy postgraduate course in personnel administration and training. However, the latter is limited at present to only about a score of officers per year, which is a small number compared to the many hundreds of billets that should require special training. A recent article described the course as follows:

> For more than a year . . . . officers selected (for this course) will devote full time to learning fundamental principles and applications of personnel administration and training.
>
> The objective of this course is to develop and maintain in the Navy a group of general duty officers who will provide informed leadership in the procedures of personnel administration and training. By means of advanced formal education, these officers will learn to apply standard scientific principles and recent developments in civilian personnel practices to the needs of the Navy.
>
> The success of men in positions of responsibility depends to a great extent upon their ability to anticipate the needs of their superiors, to work harmoniously

with their co-workers, and to understand proper administration of their subordinates in order that they will render maximum performance. Naval officers taking this postgraduate course will have an opportunity to gain basic information in the field of personnel management and training. They will be privileged to spend a year in graduate study on the campus of a leading university. Upon completing the course, they will be better equipped for a key billet in influencing the improvement of Navy personnel management.[15]

Training of Navy Instructors

That the Bureau of Naval Personnel considers the selection and training of enlisted personnel for instructor duty of utmost importance is shown by a recent circular letter on the subject.[16] This directive gives a list of qualifications which all candidates for assignment to instructor duty must meet and cautions commanding officers to use great care in recommending men when forwarding requests for such duty. However, the provisions for the training of those selected are entirely inadequate. At present there are no regularly established instructor training schools such as those maintained during the latter part of the war. Instead, training commands ashore are required to conduct their own training using whatever time and facilities that may be available. The minimums laid down in the directive

---

[15] "Personnel Administration and Training", an article in U. S. Naval Training Bulletin, December, 1946.

[16] Bureau of Naval Personnel Circular Letter 251-46, Navy Department Semimonthly Bulletin, October 31, 1946.

mentioned above are as follows:

1. Provide a probationary in-service indoctrination period of three weeks to include:
   A. Ten hours' formal training in the techniques and methods of instruction.
   B. Five hours spent in the observation and evaluation of qualified instructors.
   C. Five hours' supervised practice teaching of the candidate's teaching specialty.
   D. Ten hours' practical work in the presentation of lesson plans, job sheets, etc.
   E. The balance of three weeks for research work in technical subjects and review of available training materials and aids, related to the instructor's teaching specialty.
2. Continue status of instructor on probation for three months under supervision, recording progress on standard instructor evaluation sheet at least every three weeks.
3. After three months' satisfactory performance, the probationary status may be terminated. Further training and continuous supervision of instructors are to be carried out by the commanding officer to the end that high standards of instruction are maintained.
4. An instructor who is considered unsatisfactory

at the end of four weeks or at any time thereafter may be transferred by a request to the Bureau of Naval Personnel. Such action should not operate against the man's service record except for neglect or indifference, in which event the commanding officer should make appropriate entry in the man's record.

5. The entry "Qualified Training Officer" should be placed by the commanding officer in the service record of each outstanding individual who has completed a minimum period of one year as an instructor and has demonstrated outstanding ability as such. The purpose of this entry is to assist commanding officers in placing the man in the shipboard training program on his return to sea duty. This is in addition to the classification code which is assigned for detailing purposes.

6. Item one above, which refers to the in-service indoctrination period, may be waived if the instructor has had a comparable Navy instructor training course within the last six months or has successfully completed a course at an instructor training school.

The procedure as outlined above is satisfactory in theory as a stop-gap measure to improve the quality of in-

struction in naval training. But first, it is not working out in actual practice, and second, even if it was conscientiously carried out, such a program would fall far short of filling the need for first rate petty officer instructors.

Generally, naval training establishments ashore are handicapped by the same personnel problems that exist throughout the Navy. They are short-handed in numbers and in ratings. Their staffs are carrying work loads that do not permit sufficient time and effort to be spent on instructor training.

When the present instructor training program is compared with the training considered a minimum for qualifying teachers in civilian institutions, it can be understood why a "qualified" naval instructor has to depend considerably on the threats of military discipline and below-passing marks for motivation of students.

Due to the shortage of good, qualified petty officers who are not about to return to civil life, there is a constant struggle between operating activities and training activities for such personnel. One way to remedy the situation is for operating activities to make further sacrifices of key men for instructor training duty to increase the number and quality of technical and special school graduates throughout the Navy.

Selection of Advanced School Trainees

A good picture of one of the problems in naval

training is presented in the following message to all commanding officers from the Chief of Naval Personnel:

> The quality of students undergoing training at the Navy's shore-based schools during recent months indicates that in some cases not enough consideration is being given to meeting the standards set forth by the Bureau of Naval Personnel to govern the selection of these men. Selection for attendance at these schools should be based on the man's interest, mentality and background. These factors determine his capacity to derive the maximum benefit from the additional training afforded by shore based schools. Presence of men who are unqualified for advanced training makes administration of the course of study complicated and far less effective than it should normally be. Obviously when such men are returned to the Fleet, you, as their Commanding Officers, feel--and with good reason--that little or nothing has been accomplished by their attendance at the school. On the surface this may appear to be solely the fault of the training received; actually much of the difficulty can be traced to improper selection.
>
> It is fully realized that there is a shortage of third and second class petty officers, and an excess of nonrated men. The practice of holding the best rated men and allowing the others to attend the shore-based schools is understandable but not wholly justifiable. It is unfair to deprive a man of the benefits of advanced training simply because it is inconvenient to let him go at that time. The non-rated men should be constantly in training to assume the duties of those immediately above them. There is a valuable morale factor involved that cannot be ignored. It is human nature to want to better oneself. The man who has mastered the duties of his billet is a logical candidate for advancement, and hence for further training. A course taken at a shore-based school may mean the difference between a man's becoming a mediocre workman and a skilled technician.
>
> The policy of returning men to their ship on completion of their training is being followed meticulously and every effort is being made to return all men who satisfactorily complete their training and are physically fit to continue their tour of duty. The Bureau of Naval Personnel has accelerated the training program in many instances so that the men can be returned as quickly as practicable to their ships.
>
> At this time the Navy is faced with its most critical peacetime recruiting and training program. A carefully planned long-range training program with every

advantage given to improve the usefulness of every man will be instrumental in the years ahead in maintaining our Navy's supremacy.[17]

Thus one of the problems in instructor selection is basically the same in student selection.

The Bureau of Naval Personnel continually and carefully surveys the training needs in the Navy and assigns quotas for various schools and courses. In order to maintain the planned output it is often deemed necessary to lower entrance requirements for candidates from recruit training as well as from the fleet when the number of qualified volunteers is insufficient. The resulting reduction in percentage of successful graduates and in the standards of the schools is most undesirable.

Effects of Rotation on Training

The Navy has two policies requiring the rotation of personnel; one results in periodic changes of types of duties within the field of a man's rating in order to widen his interest, experience, and usefulness; the other calls for regular changes between duty at sea and duty ashore, principally in the interest of morale, since few men would volunteer for continuous sea duty.

In civil life the average tradesman or craftsman sticks fairly close to the type of work for which he has

---

[17] Rear Admiral T. L. Sprague, U. S. Navy. Printed in U. S. Naval Training Bulletin, April, 1947.

been trained or qualified by experience. In the Navy, a man not only specializes in a rating, but he must be trained for the general duties and responsibilities of being a petty officer, for standing various types of watches, and for performing the many types of tasks that are included in most ratings. There is a natural tendency for officers to keep a man in the job that he knows. It stems from a desire to achieve and maintain a smoothly working division or team. However, limiting the scope of knowledge of a man does not make provisions for casualty replacements or for the normal desire of a man to improve his knowledge, to widen his experience, and to advance in rate. It is therefore necessary to plan for controlled rotation of men from duties in which they have reached an acceptable standard of proficiency to others in which further training will be needed.

The policy of rotation of all naval personnel between sea and shore duty is most necessary and is closely followed. However, a man fully qualified for certain tasks on one tour of duty aboard ship is not necessarily qualified for similar duties when again assigned to sea duty. Due to continuous changes in equipment, tactics, and methods and due to the fact that a man's knowledge, ability, and efficiency deteriorate when away from a type of work for many months, further training and refresher training are necessary in greater amounts than if he remained on one job continuously except for short periods of leave.

Conclusions

1. If modern, efficient methods are to be employed in the naval training program, the officers who do the administrating and supervising should be given special training as well as those who actually do the teaching.
2. The training for all prospective commissioned officers should include more instruction on the essentials of how to manage and train personnel.
3. The teaching qualifications of existing Navy instructors and the provisions for training new instructors should be improved.
4. Every effort should be made to improve the selection of advanced school trainees and to raise the standards of instruction of Navy schools.
5. Rotation of personnel between sea and shore duty is necessary, but officers and enlisted men trained and qualified in personnel administration and training should be continuously utilized in that field as much as possible. This is not intended to mean that officers' careers should be limited to one type of duty. Their assignments to duty, especially at sea, should provide the well-rounded experience that is necessary as a background for promotion and success!

However, the naval training organization is so large and the types of duty within it so varied, that successive duty in that field requiring similar qualifications would not necessarily mean a repetition of the same job.

6. The unpopularity of duty in training could be corrected in several ways, including:
   A. Billets such as training officer aboard ship and school officer ashore should be assigned to the best officers available; selection for such duty should be considered an honor, as in the Marine Corps.
   B. Officers selected should be given special training and impressed with the importance of their work.
   C. More education on personnel administration and training should be given to prospective commissioned officers; familiarity in this case does not breed contempt; it assists in providing interest, enthusiasm, and ability.
   D. An intensive campaign should be conducted to improve the understanding of all Navy personnel on the objectives, functions, methods, and problems of naval training.

BIBLIOGRAPHY

Army and Navy Register, July 12, 1947, Article "USAFI", p. 22.

Auer, J. Jeffery, "Discussion Programs and Techniques in the Armed Forces", Quarterly Journal of Speech, Vol. XXXII, No. 3, October, 1946.

Bingham, Walter V. D. Aptitudes and Aptitude Testing. New York: Harper and Brothers, 1942.

Bureau of Naval Personnel, Circular Letter 251-46, Navy Department Semimonthly Bulletin, October 31, 1946.

Bureau of Naval Personnel, "Personnel Administration and Training", U. S. Naval Training Bulletin, December 1946, p. 7.

Bureau of Naval Personnel, "Shipboard Training Manual" U. S. Naval Training Bulletin, starting with issue of December, 1946, and through issue of July, 1947.

Bureau of Naval Personnel, "Organized Shipboard Training" U. S. Naval Training Bulletin, April 15, 1945, p. 1.

Bureau of Naval Personnel, Use of Training Aids, 1945, p. 2.

Bureau of Naval Personnel Information Bulletin, All Hands, October, 1945, p. 31.

Bureau of Naval Personnel, Instructor Training Section, Standards and Curriculum Division, Training Officers Guide for Enlisted Advancement, NAV PERS 16325, August, 1944.

Bureau of Naval Personnel, Instructor Training Section, Standards and Curriculum Division, Informational Guide for School Officers, NAV PERS 16317 (Restricted), March, 1945.

Bureau of Naval Personnel, Training Division, Manual for Navy Instructors, NAV PERS 16103, February, 1944.

Bureau of Naval Personnel, Standards and Curriculum Division, Recommended Courses for Refresher Training, NAV PERS 16387, March, 1945.

Bureau of Naval Personnel, Standards and Curriculum Division, Manual for Practical Development of Leadership Qualities, NAV PERS 16154, October, 1944.

Bureau of Naval Personnel, Educational Services Manual, NAV PERS 16963, 1946.

Bureau of Naval Personnel, Standards and Curriculum Division, Your Future in the Navy, NAV PERS 90109, June, 1947.

Bureau of Naval Personnel, Standards and Curriculum Division, Instructions for Preparing Curricula in Standard Navy Form, NAV PERS 16012, July, 1945.

Bureau of Naval Personnel, Instructor Training Section, Standards and Curriculum Division, In-Service Training, NAV PERS 16327, May, 1945.

Bureau of Naval Personnel, Standards and Curriculum Division, Instructor Training Bulletins:
"The Vanishing Chairs", NAV PERS 16300
"How to Give a Demonstration", NAV PERS 16301
"Are You Training Fighting Men?", NAV PERS 16302
"Faster Progress", NAV PERS 16303
"Training Teams", NAV PERS 16304
"Taut Classrooms for Fighting Ships", NAV PERS 16305
"Planning for Better Training", NAV PERS 16306

Holden, Paul E., Fish, Lounsbury S., and Smith, Hubert L. Top Management Organization and Control. Stanford University: Stanford University Press, 1941.

Holly, Charles E., High School Teachers' Methods, Champaign, Illinois: Garrard Press, 1937.

King, Ernest J., Fleet Admiral, U. S. Navy, Second Official Report to the Secretary of the Navy, March 12, 1945.

Naval Air Technical Training Command, Bulletin of Naval Air Technical Training Command, Vol. 2., 1946, (Restricted).

Navy Department. Bureau of Naval Personnel Manual, Washington: Government Printing Office, 1942.

Navy Department. United States Navy Regulations, Washington: Government Printing Office, 1944.

Navy Department, Office of the Management Engineer, The United States Navy, A Description of Its Functional Organization, Appendix B. NAVEOX P-435, Revised, March, 1947.

Shane, Harold G., Ensign, U. S. Naval Reserve, Curriculum Handbook for the Instructor Training School, U. S. Naval Training Center, Farragut, Idaho, 1944.

Skinner, Charles E., Educational Psychology. New York: Prentice-Hall, 1946.

Sprague, T. L., Rear Admiral, U. S. Navy, "A Message to All Commanding Officers", U. S. Naval Training Bulletin, April, 1947, p. 2.

Ward, Stanley A., Technical Training in the Navy With Some Implication For Secondary Education, a M. A. Thesis, Stanford University, School of Education, August, 1946.

Will, J. M., Captain, U. S. Navy, "To All Bureau of Naval Personnel Training Activities", U. S. Naval Training Bulletin, October, 1946, p. 2.